

FOR SAFER STREETS
AND HIGHWAYS

FOR MORE ATTRACTIVE,
ECONOMICAL LIGHTING

NOVALUX FORM 79 LUMINAIRE

GENERAL  ELECTRIC

NOVALUX



FORM 79 LUMINAIRE

The sight-saving, life-saving improvement in street lighting that has become possible in recent years for the economy-minded purchaser is a direct product of scientific research—principally of General Electric research, because the pioneer luminaire that had the necessary high efficiency and glare suppression, coupled with low initial and maintenance cost, was General Electric's Form 79.

Although it has been widely imitated by others, the G-E Form 79 is still unequaled for effective and economical traffic-safety lighting. The same competent engineers whose research, experience, and skill produced this epoch-marking gain in seeing for safety at low cost have continued to introduce practical improvements that make application easier and save money for the user. The discriminating buyer—the man who wants the best lighting and the least cost simultaneously—can still, as always, get the most for his money through buying the G-E Novalux Form 79 luminaire. The purpose of this bulletin is to show why.

Let's get a little of the background. Let's think back about five years, to the time when the Form 79 was introduced. The Illuminating Engineering Society had just revised its code for street lighting in order to get the published standards for adequate safety lighting in line with the recognized needs of heavier, faster-moving traffic. The engineers of the General Electric Company's Lamp Department had just completed research which showed how glare, pavement brightness, luminaire spacing, luminaire position over the pavement, and the numerous other factors encountered in practical street lighting, affect the practical problems of seeing with safety.

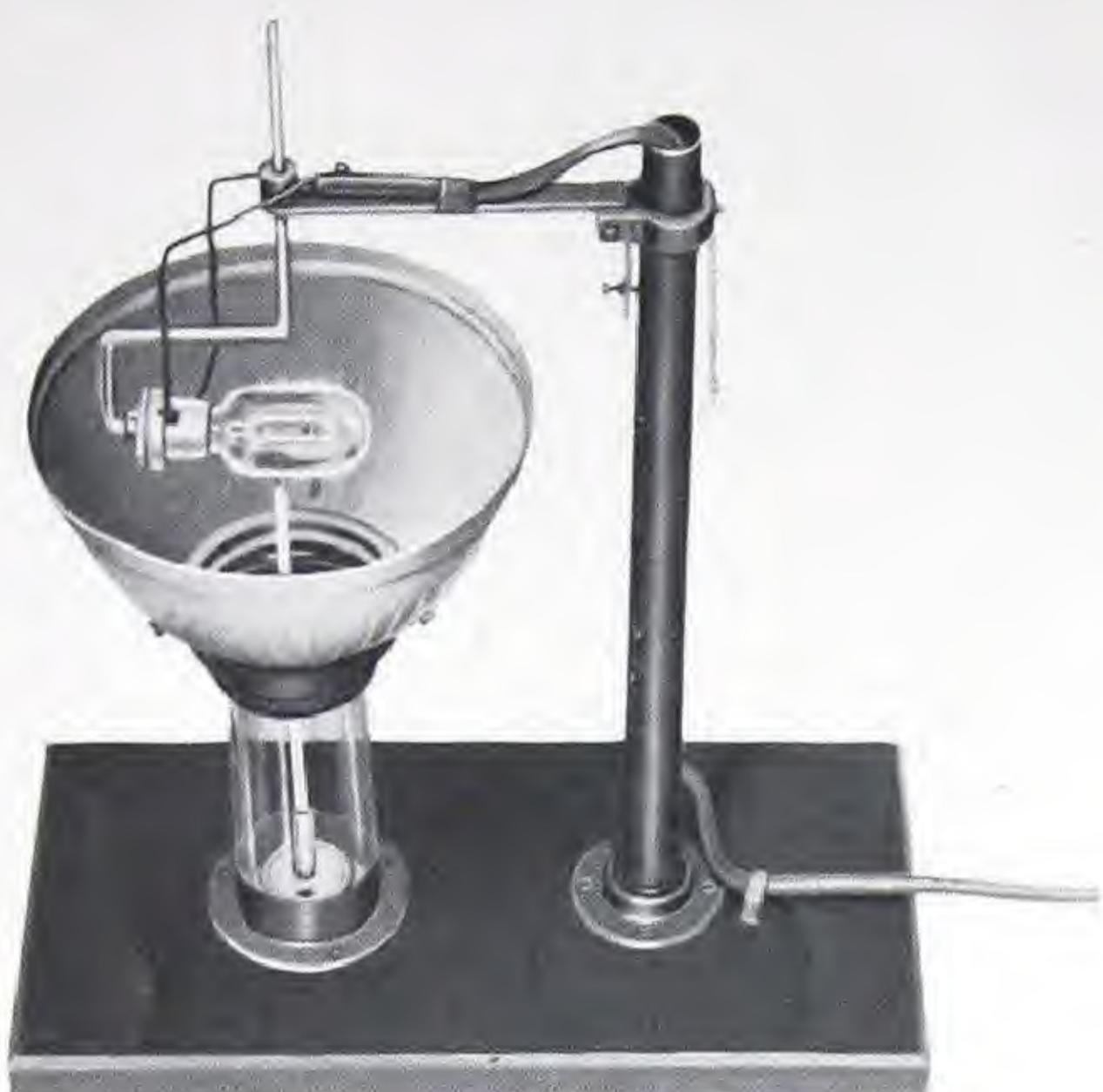
Yet the best luminaires available to meet the new requirements were glass-globe or refractor units ranging from \$25 to \$35 in price. Although practically every manufacturer had made efforts to bolster the utilization efficiencies of various lower-priced luminaires, it almost always resulted that the increase in glare nullified the benefit obtained through putting more light on the pavement. The complexity of many of these luminaires made maintenance somewhat costly—particularly in the item of glassware; for 20 per cent replacement per year was the accepted average for the industry. This was the situation into which was introduced the G-E Novalux Form 79 luminaire.

The Form 79 luminaire, as introduced in 1935, was substantially as you see it illustrated here. Its deep shading reflector delivered as much as 80 per cent more light to the pavement than did the best of the previous luminaires. The shading of the light source greatly reduced the candlepower in directions near the horizontal, thus suppressing objectionable glare and contributing greatly to the appearance and seeing capacity offered by the lighting system. As a result of a newly introduced method of joining the globe to the reflector by a spinning process, it was found that some users reduced the amount of glassware breakage by 85 per cent—a saving which, in the aggregate, amounted to thousands of dollars in maintenance expense. Further, the simplicity of its construction and the production methods used in its manufacture brought about an average reduction of 40 per cent in the price of the luminaire. Small wonder that, with all these advantages, this type of luminaire gained immediate, widespread acceptance and that more adequate lighting for greater traffic safety gained ground. Practically overnight, the accepted standards of general street lighting were raised, and lighting practice improved.

Naturally, in short order many imitations of this luminaire were placed on the market; but only with the Form 79 do you get extra benefits and the advantages of easy application and low maintenance cost. The G-E Novalux Form 79 is still unequaled for all the kinds of street and highway lighting to which this general type of luminaire is applicable. And on the pages that follow are described the features that make it so.

1. The Lamp-saver Reflector.
2. The Spun-sealed Globe Holder.
3. Extra-long-life Glassware.
4. A Weathertight, Bugproof, Gasketless Joint between Hood and Reflector.
5. Adaptable to All Common Methods of Installation.
6. Clean-cut, Attractive Appearance.
7. Time-saving Reconditioned-reflector-exchange Plan.
8. Optional Detachable Globe Holders.
9. Simple Means for Adapting the Form 79 Reflector to Other Forms of Hoods and Insulators.
10. Efficiency That Matches the Performance of the New Mazda Type H Mercury Lamps.

THE LAMP SAVER REFLECTOR



Testing stand for showing difference in vertical-axis temperature with smooth and stepped reflector

The high-visibility illumination obtainable with the G-E Novalux Form 79 luminaire, involving high efficiency in directing light to the pavement properly and without objectionable glare, is largely due to its specially developed deep-bowl reflector. But deep reflectors of this type naturally reflect a great deal of light back through the focal axis of the lamp unless special means are taken to prevent it; and concentration of this energy on the leads and stem have been found to be quickly destructive to the lamp. This feature of ordinary smooth-spun reflectors is likely to cause excessive lamp renewal cost. But the problem was overcome in the reflector of the G-E Form 79 luminaire by forming it with 48 offsets, which cause light rays to be redirected around the focal axis instead of through it. Tests were conducted to determine the difference in vertical-axis temperatures with a smooth circular reflector of a certain well-known luminaire and the G-E stepped reflector. The stepped reflector averaged 275 F cooler with a 500-watt lamp. This lamp-saving characteristic of the Form 79 reflector is typical of the constant improvement that keeps the Form 79 out in front.

SPUN-SEALED GLOBE HOLDER



The reflector and globe are permanently sealed together to prevent the entrance of dust and insects. Glassware breakage is low because the lip of the globe is completely covered

Here is a striking departure from the old way of doing things—the reflector and the globe are permanently sealed together at the factory by a spinning process that completely eliminates gaskets and separate globe holders. This construction not only completely and permanently seals the joint against the entrance of bugs and dirt, but also reduces glass breakage to the point where attractive savings result. A recent investigation showed that the average glass breakage is only about 15 per cent of what is normally expected of street lighting glassware—in other words, about 3 per cent per luminaire a year instead of 20 per cent.

There are two good reasons why glass breakage should be so low with the spun-sealed method of assembly. First, the lip of the globe is completely covered and is never exposed to mechanical damage when the luminaire is being cleaned or relamped. Experience shows that most glass breakage starts at the lip, which is sometimes chipped in handling. Eliminate the danger of damaging the lip of the globe and you eliminate the principal cause of glass breakage—and the spun-sealed globe holder eliminates it. Then too, the method of assembly eliminates globes in which there are severe strains or inherent weaknesses which might cause early failure, thus assuring users of this holder that they get glass with better-than-average life expectancy.

With this spun-sealed construction, of course, a new method is necessary for opening the luminaire for relamping. The entire reflector-globe assembly is attached to the hood with two simple, hand-operated latches and a safety chain. The latches provide for easy removal; the chain prevents accidental dropping.

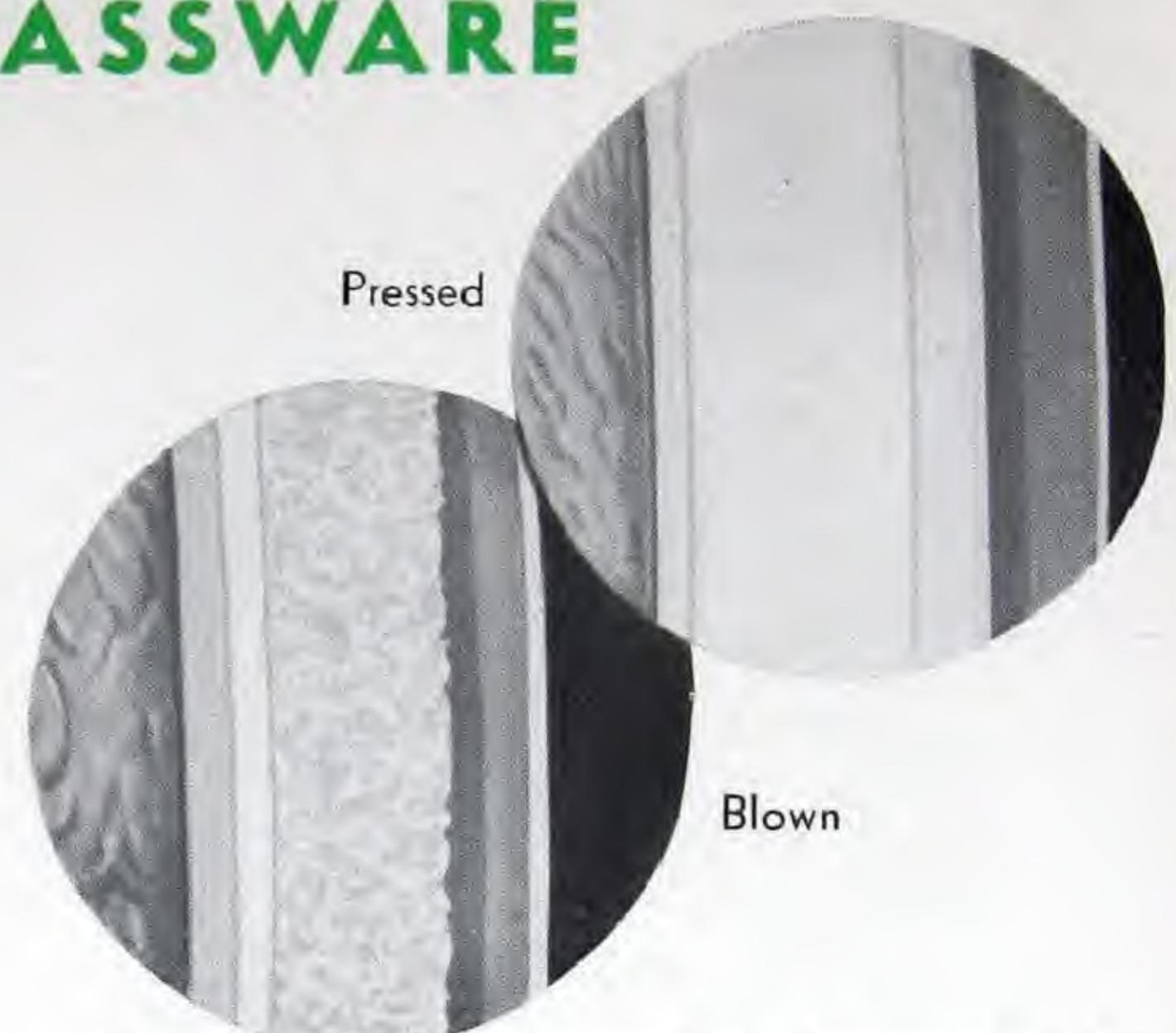
EXTRA-LONG-LIFE GLASSWARE

The Gleason-Tiebout globes and the Holophane bowl refractors used on the G-E Form 79 are characterized by:

- (a) Greater-than-ordinary thickness and *uniformity* to assure great mechanical strength.
- (b) A finished edge that is hard to chip (chipped edges account for the great majority of broken globes).
- (c) Crystal clarity for high transmission and for greatest practical efficiency in delivering light to the road.
- (d) General Electric's exclusive form of rippling, which gives life and sparkle to the light, provides the right degree of light diffusion for excellent appearance, and makes the glass easy to clean (self-cleaning, to a large extent).

These globes and refractors are pressed, not blown. Only pressed glass gives these desirable features to the extent which assures long life, and its use is possible because of the very practical shape chosen by G-E decorative designers for this luminaire.

Two shapes of globes are available. The standard globe is known as No. 205, and the Holophane refractor is also of this shape. For those who feel that a deeper globe would give a desirable sense of larger size, the No. 207 shape is also available. As most commonly used, these globes are made of crystal-clear glass; but they can also be had with a light-alabaster diffusing medium if desired. Here is evidence of the versatility of the Form 79—it lends itself to your particular requirements.



Microphotographs showing lip of pressed and blown globe. The smooth-finished, pressed-glass edge resists chipping. The ground edge is rough and easily chipped; vibration and repeated heating and cooling causes tiny cracks to enlarge and damage the globe



No. 205 globe



No. 207 globe

WEATHERTIGHT, BUGPROOF, MACHINED JOINT BETWEEN HOOD AND REFLECTOR

In any enclosed luminaire, the weatherproofing and bug-proofing of the joint which must be opened to service the luminaire is a critical matter—one that is exceedingly important to the prolonged maintenance of high efficiency and good appearance. In these respects, the G-E Form 79 excels any other luminaire ever produced. The joint that is opened for servicing is between the reflector and the hood, where an accurately die-formed metal shoulder seats against an accurately machined or die-cast seat in the hood. The length of this joint is only 19 inches—the circumference of an opening just large enough to pass the lamp bulb. Compare this with a joint of 40 inches—the circumference of the globe or globe ring of a hinged holder. Consider how much more readily two strong hand-operated latches can clamp this smaller joint tightly—without a gasket to take up irregularities or distortion, because there are no such irregularities and distortion with this simple, practical construction.

Yet access to the interior for relamping is simple. Release the tension on the two hand-operated latches and lift them off the hood lugs on which they engage. The reflector hangs by its safety chain, and both hands of the operator are left free to work. To replace, simply hook the latch bails over the lugs and snap the toggle levers upward. This makes a joint that is tight—not because of gaskets, but because of the basic soundness of design and accuracy of manufacture.



The metal-to-metal joint between hood and reflector is the only opening in the spun-sealed Form 79

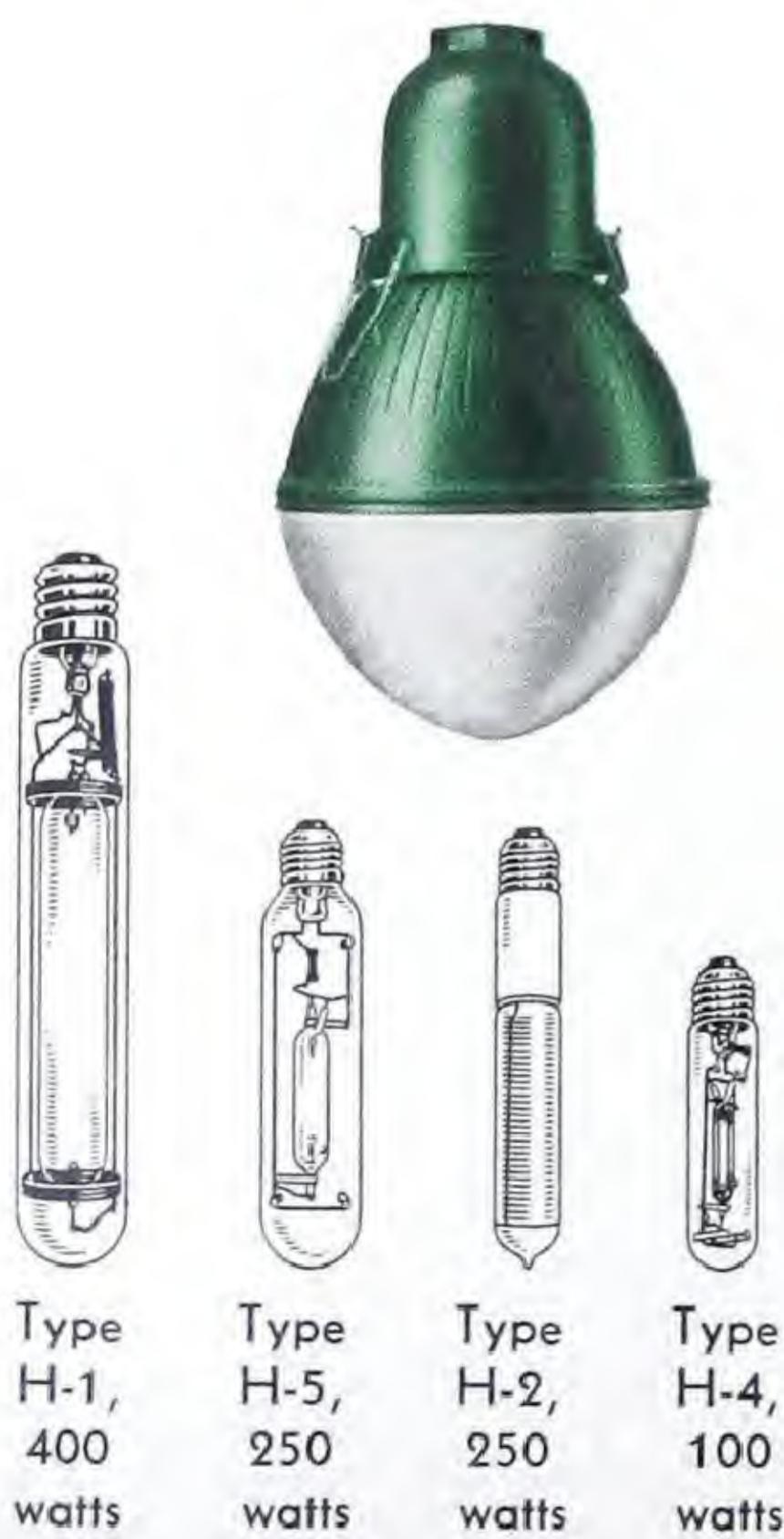
TIME-SAVING RECONDITIONED-REFLECTOR EXCHANGE



While the spun-sealed globe holder of the G-E Novalux Form 79 luminaire reduces glass breakage to but 15 per cent of what would normally be considered average, it is inevitable that there should be some glass to replace, from time to time. This, of course, is a factory job. However, General Electric's reconditioned-reflector exchange plan makes it possible for the user to obtain a reflector with new glassware attached to replace his damaged one *in no more time than is required to obtain the glass itself for other luminaires.*

G-E warehouses, located in every section of the country, carry stocks of reconditioned reflector-glass assemblies of the various types that are used in the territories they serve; and all that is required is that the user return to our warehouse his damaged reflector assembly in exchange for another. He will receive in exchange a unit that not only is equipped with a new glass globe or refractor, but that also has been thoroughly cleaned and polished on the inside, from which all dents have been removed, and to the outside of which a new coat of Glyptal enamel has been applied—in other words, an assembly equivalent to a new one. The charge for this is small; and considering the greatly reduced rate of glassware breakage that results from the spun-sealed construction, the cost of maintaining glassware is greatly reduced from that experienced with other types of construction. The very few spare reflector-glass assemblies and the conveniently located G-E warehouse stocks make it entirely practical and economical to maintain continuous service with G-E Novalux Form 79 equipped with the spun-sealed globe holder.

EFFICIENCY THAT MATCHES THE PERFORMANCE OF THE NEW MAZDA TYPE H MERCURY LAMPS



The recently developed 100-watt, 250-watt, and 400-watt high-intensity mercury lamps (MAZDA Type H lamps) are easily adapted to the Form 79 luminaires. The high efficiency of the Form 79 luminaire matches well the high efficiency of the mercury light source—both are about twice that of ordinary equipment—thus providing for distinctive, attractive, and exceptionally efficient street lighting. In some instances, ballast units for the mercury lamps can be mounted within the hood of the luminaires; in other cases, external ballast units are required. In any case, further details will be furnished on request by the nearest General Electric sales office.

Type H Mercury Lamps

	Type H-1	Type H-5	Type H-2	Type H-4
Lamp watts rated	400	250	250	100
Lumens per watt	40	40	30	35
Total lumens at 100 hours	16,000	10,000	7500	3500

CLEAN-CUT ATTRACTIVE APPEARANCE

Basically, the design of the Form 79 luminaire is functional, the size and shape of the various component parts being determined principally by considerations of efficiency, correct light distribution, ample space for wiring, ample insulation, and similar practical needs. Yet it achieves considerable artistic merit because of the simplicity of lines and the harmonious blending of contours. Reflectors are spun from sheet aluminum; and hoods, as far as is practical, are of die-cast aluminum. Both of these features promote a smoothness of surface that makes for attractive appearance. Many users prefer the natural-aluminum finish on both reflector and hood because painting is eliminated. Then, too, the natural aluminum harmonizes with the hot-dip galvanized finish of the street-lighting bracket. Others prefer our standard—a glossy dark-green Glyptal enamel finish, rich in its appearance and highly resistant to the ravages of the weather. The toughness and durability of this finish save money, because it retains its good appearance over long periods of time and thus requires repainting less frequently.

If the requirements of the particular installation call for an ornamented luminaire, there is available a set of four cast-aluminum leaves which are easily attached to the reflector. When, in addition, the No. 207 globe is used, the effect is that of a much larger luminaire of highly pleasing appearance.



Form 79, 205 globe

Form 79, 207 globe

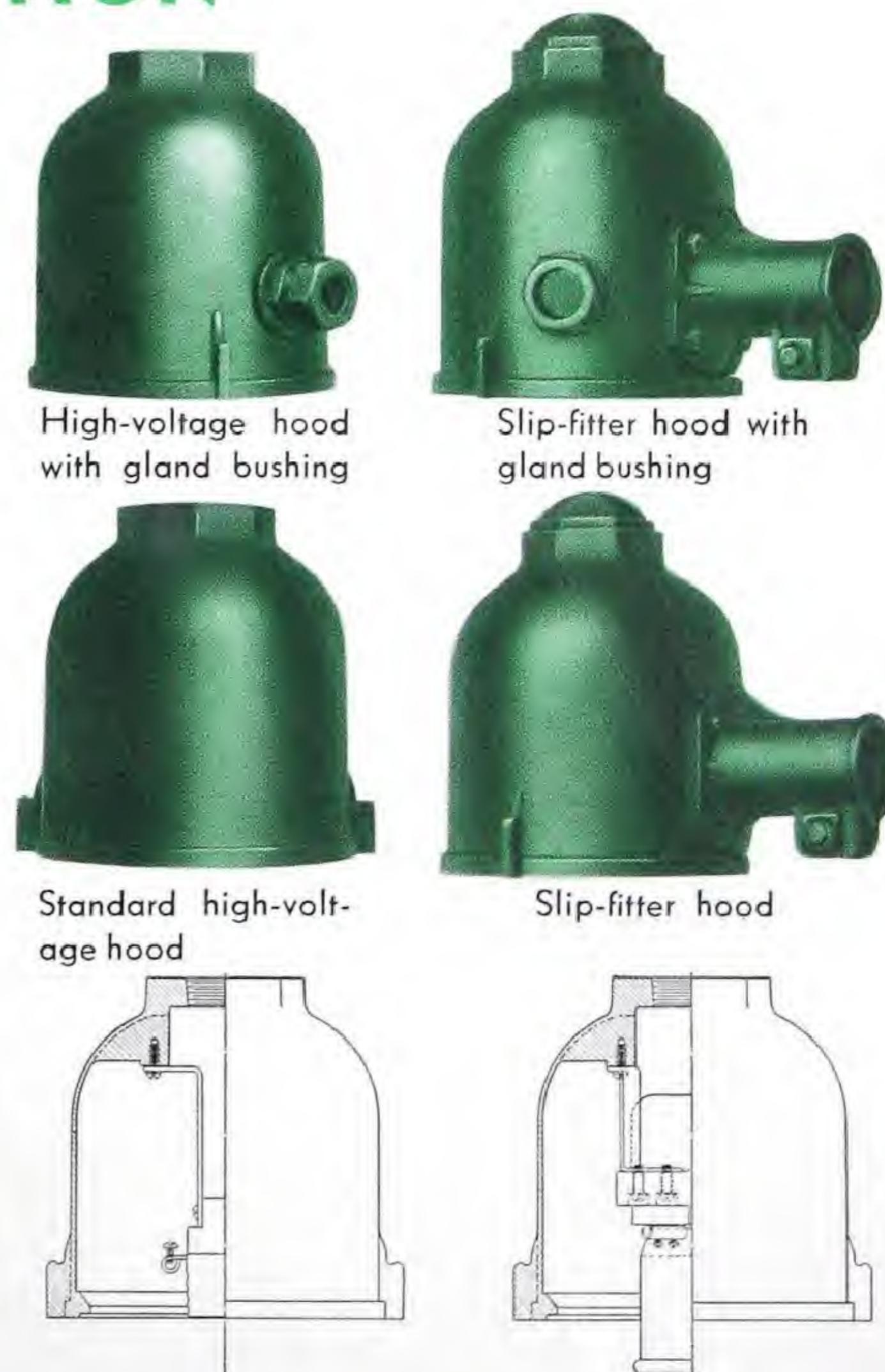
Natural
aluminum finish and ornaments

ADAPTABLE TO ALL COMMON METHODS OF INSTALLATION

All the requirements for bracket, mast-arm, or span-wire mounting, and for internal or external wiring, are met by the variety of hoods available with the Form 79 luminaire. For example, one standard arrangement is a $1\frac{1}{4}$ -inch pipe-tap opening in the top of the hood for suspension or right-angle-bend bracket mounting and internal wiring. Then there is the slip-fitter hood, which slips directly onto the end of a straight $1\frac{1}{4}$ -inch bracket, for internal wiring. To take care of external-wiring requirements, there are hoods with porcelain bushings which carry weather-proof-braid-covered wires direct to the socket or receptacle. There are hoods with watertight gland bushings that will pass a 5000-volt insulated-two-conductor cable. There are hoods with bushings and binding posts to which the lead wires can be attached externally.

These luminaires can be arranged with sockets for multiple-circuit lamps up to 500 watts, or series-circuit lamps of up to 10,000 lumens. Series-circuit luminaires are ordinarily equipped with a receptacle which has a flashover capacity of 17,000 volts when properly wired. Where an even higher value is desired, the hood can be furnished with a wet-process-porcelain receptacle rated for 25,000 volts' flashover capacity when properly wired, at a small extra charge.

Maintenance of proper light distribution is assured by the rigid positioning of the lamp socket for the particular type and size of lamp that will be used.



High-voltage hood
with gland bushing

Slip-fitter hood with gland bushing

Standard high-voltage hood

Slip-fitter hood

OPTIONAL DETACHABLE GLOBE HOLDERS



Form 79 with bail-type globe holder



Form 79 with C-clamp-type globe holder



Form 79 with roller-latch-type globe holder

For those installations where the spun-sealed globe holder may not be considered applicable, General Electric offers three types of detachable-glassware units, as follows:

The bail-type holder consists of two spring metal bands attached to the reflector and extending downward into the interior of the globe, joined at the bottom, and equipped with a stud which extends out through a small hole at the bottom of the globe. A nut which threads on this globe support holds the globe securely in compression and with spring pressure against a cork gasket on the rim of the reflector. Because this globe is held in compression against the globe rim, it is stronger and better able to withstand vibration and mechanical shocks than are globes held by suspension from their rim. The luminaire is opened for servicing in the same manner as the spun-sealed luminaire. It is furnished at the same price as the spun-sealed holder.

Hinged globe holder with hand-operated latch. This globe-holder construction approaches the conventional type in that a cast holder is clamped around the glass and hinged to the reflector rim, and is provided with a single, hand-operated latch in the form of a C-clamp. Since in this case it is expected that servicing of the luminaire will normally be done by unlatching the globe, the globe seat has a heavy felt gasket. Outstanding features of the cast-aluminum hinged holder furnished for the G-E Novalux Form 79 are:

- (1) The holder is clamped around the globe with a single take-up screw, and has stops to limit the take-up. Some adjustments is, of course, essential because of unavoidable small variations in the diameter of the glass; but this limiting feature will prevent crushing of the glass.
- (2) The globe—not the globe holder—seats against the gasket. This construction, which requires one less gasketed joint, is practical because the G-E pressed glass has a heavy finished edge that resists chipping and is uniform in dimensions. It is offered at the same price as the spun-sealed holder.

Hinged globe holder with roller latch. This globe-holder construction permits relamping from the ground, if desired, by the use of a lamp remover. A push from below on the ingenious spring latch allows the globe holder to swing open; a thrust on the globe from below will swing it shut. Of course, the hinge must be sturdy and machined to close limits to make this sort of operation possible; and it is. Further, G-E hinged globe holders can be lifted off the hinge readily and without using any tools; but the design is such that the globe holder cannot, in normal operation, jump out of the hinge. The latch used is of the roller type and has a simple, practical screwdriver-operated adjustment to compensate for variations in globe dimensions, thus assuring easy operation under all conditions. The use of high-quality materials and sturdy design assure long life and continued smooth operation.

These various forms of detachable glass units are the result of 47 years of experience in the design and construction of luminaires for street lighting. They are all simple and sturdy, they protect the glass to the greatest extent possible, and they are as resistant to weather and insects as detachable holders can be made to be. For the user who demands the utmost in efficiency and low maintenance cost, however, we recommend the spun-sealed globe-holder construction.

SIMPLE MEANS FOR ADAPTING THE FORM 79 REFLECTOR TO OTHER FORMS OF HOODS AND INSULATORS

Those lighting-system operators who, for high-voltage series lighting, prefer the porcelain-insulator type of head, will find means readily available to adapt the Form 79 reflector to their requirements. G-E Novalux Form 45H, 45M, 46, and 72 insulator units can be supplied with this type of reflector—known, not as the Form 79, but, for convenience, as the Alzak* shallow bowl reflector and globe (or refractor). Adapters are available to convert many existing forms of units to take this reflector. In each case, the advantages of high efficiency, suppression of objectionable glare, and rock-bottom maintenance costs that are offered by the Form 79 luminaire become obtainable with the other form of unit.

This is an important aid to standardization in the lighting system, for most operators have one or another form of luminaire which they use extensively for ordinary utilitarian lighting and which they would like to continue to use for high-level traffic-safety lighting that needs the reflector system of the Form 79.

As a further aid to standardization in those cases where a metal-hood unit is used throughout the system with radial-wave reflectors, there is an adapter which latches to the Form 79 hood and accommodates all the standard radial-wave reflectors. Thus, the Form 79 takes its place as a unit which can be standardized for all classes of municipal street lighting.

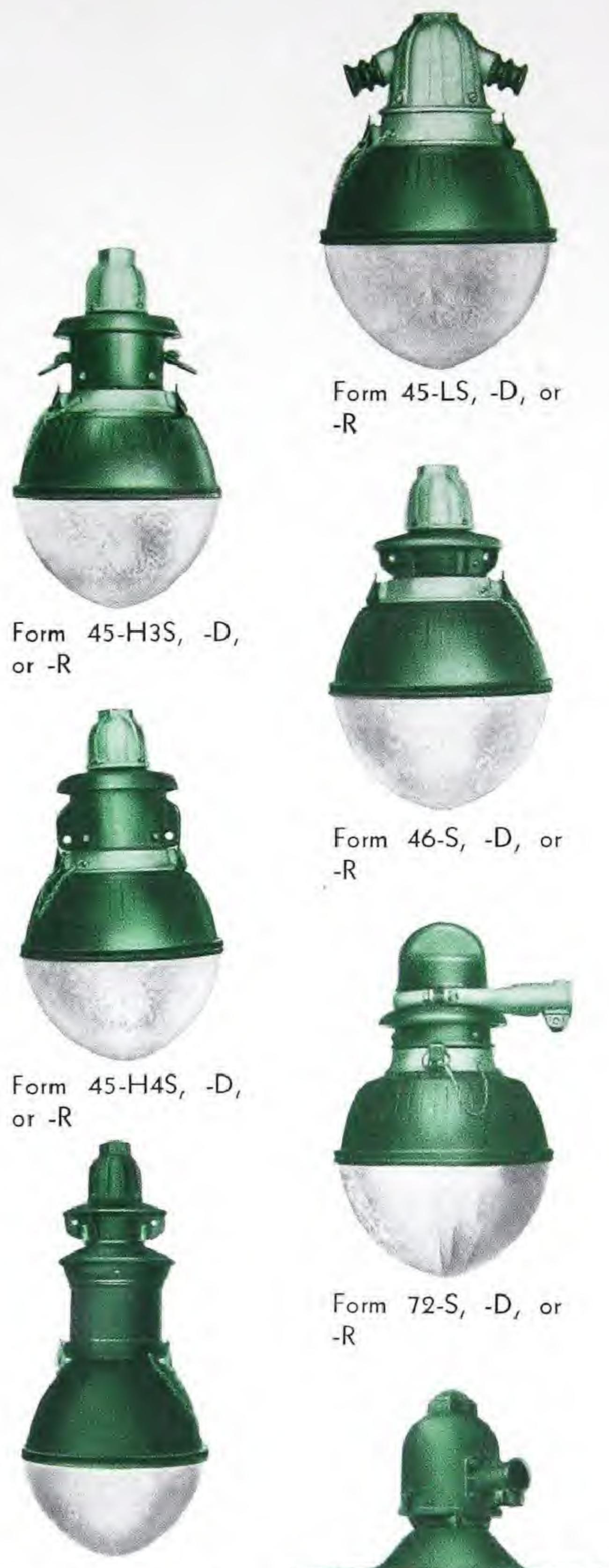
* Manufactured under Aluminum Company of America patents.

Parts for Modernizing Existing Luminaires

Description	Cat. No.	List Price *
Forms 45H1, 45H2, 45H3, 45H4, 45M1, 45L, 46, 72		
Adapter (All but Form 45L and 46).....	71X723	\$2.40
Adapter (Form 45L only).....	5556080G1	2.40
Adapter (Form 46 only).....	71X857	2.40
Green Paint Finish, New Shallow Reflector		
Reflector and No. 205 Globe (For 79-S distribution).....	5556810G8	18.55
Reflector, Deflectors and No. 205 Globe (for 79-D distribution).....	5556810G9	27.55
Reflector and B-way Refractor (for 79-R distribution).....	5556810G10	28.80
Natural Aluminum Finish, New Shallow Reflector		
Reflector and No. 205 Globe (For 79-S distribution).....	96X14	18.55
Reflector, Deflectors and No. 205 Globe (for 79-D distribution).....	96X15	27.55
Reflector and B-way Refractor (for 79-R distribution).....	96X16	28.80
Form 6		
Casing for Adapting Reflector.....	4865672G1	10.00
Green Paint Finish, New Deep Reflector		
Reflector and No. 205 Globe (for 79-S distribution).....	5556810G1	18.55
Reflectors, Deflectors, and No. 205 Globe (for 79-D distribution).....	5556810G5	27.55
Reflector and B-way Refractor (for 79-R distribution).....	5556810G6	28.80
Natural Aluminum Finish, New Deep Reflector		
Reflector and No. 205 Globe (for 79-S distribution).....	96X5	18.55
Reflector, Deflectors, and No. 205 Globe (for 79-D distribution).....	96X9	27.55
Reflector and B-way Refractor (for 79-R distribution).....	96X6	28.80

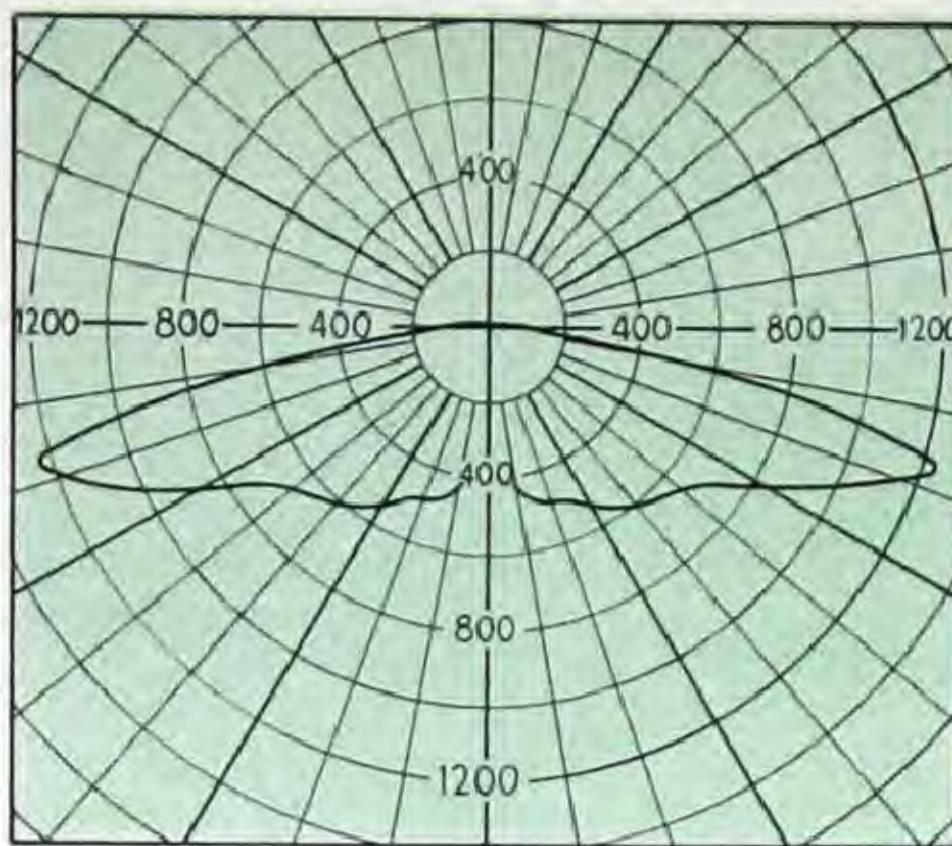
Above reflectors are available with C-clamp at regular price or with roller latch \$2.00 list additional.

* Prices and other data subject to change without notice.

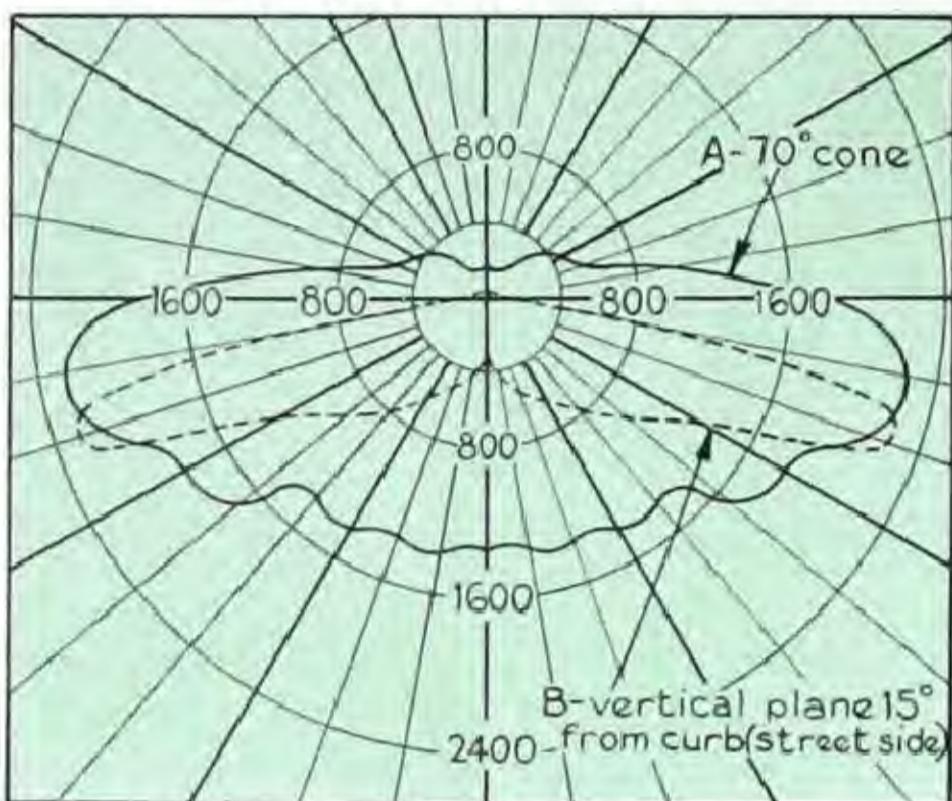


Low-cost adapters are available for converting many existing suspension luminaires to take the Form 79 reflector assembly

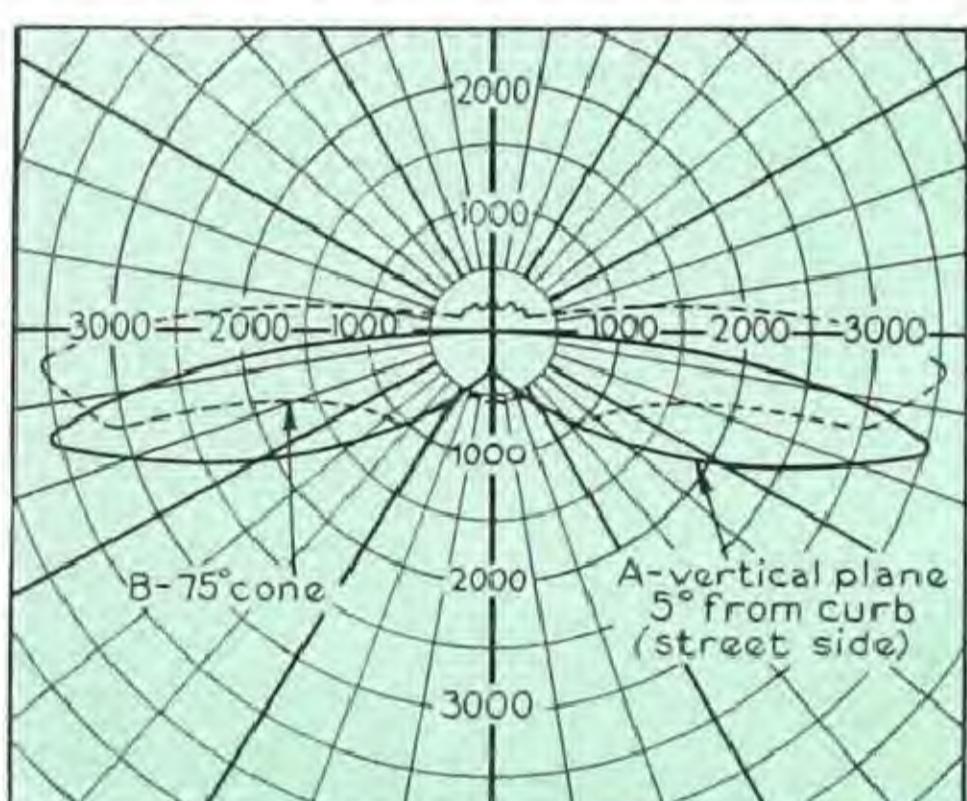
APPLICATION



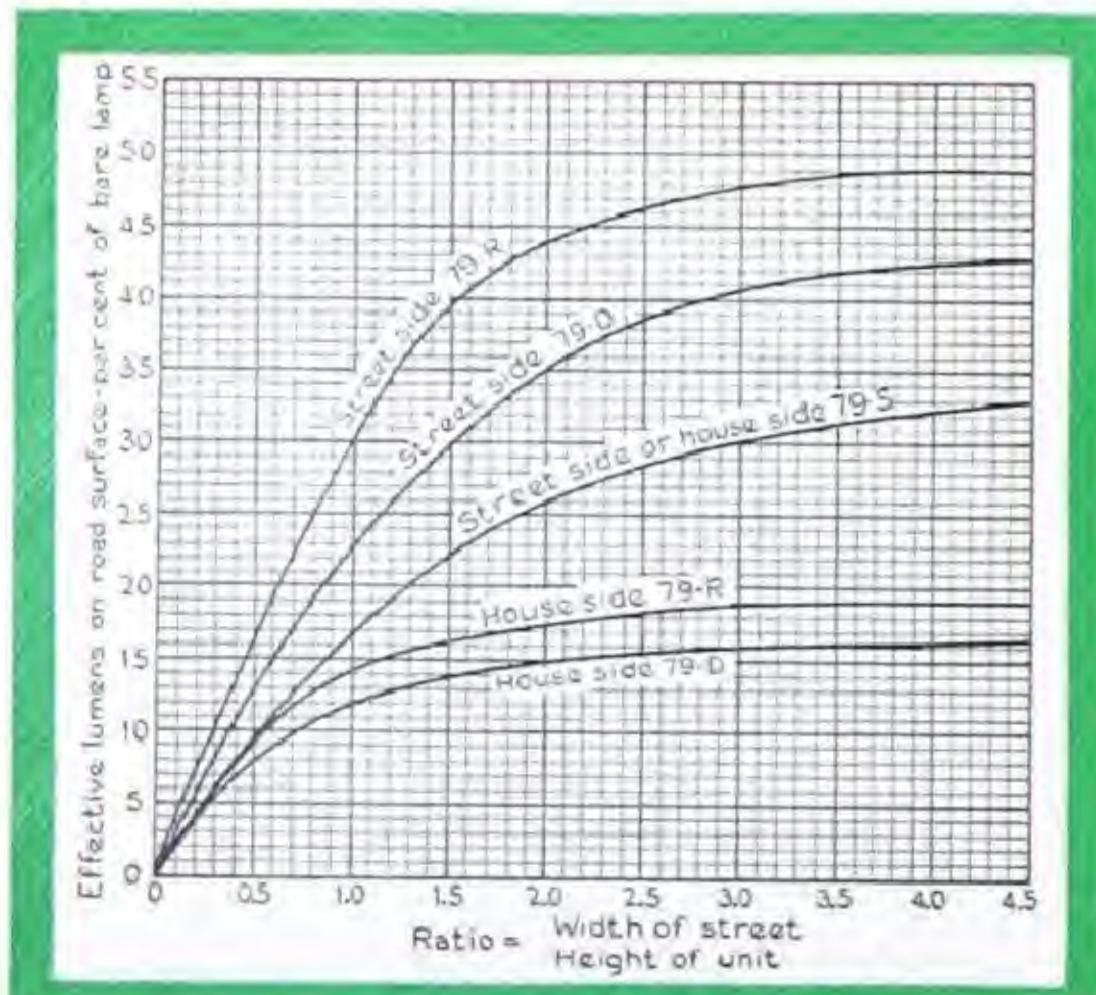
Form 79-S distribution curve in vertical plane with 6000-lumen lamp



Form 79-D distribution curve in maximum vertical plane and 75-degree cone with 6000-lumen lamp



Form 79-R distribution curve in maximum vertical plane and 75-degree cone with 6000-lumen lamp



Effective lumens on road surface with Form 79-R, and Form 79-S and -D using No. 205 globe

The Form 79 luminaire meets practically every need in incandescent street lighting. It is furnished in three general types, Form 79S, 79D, and 79R. The Form 79S gives a symmetrical distribution of light and is especially effective for center-span mounting at intersections, recreation parks, and campus areas, where the asymmetric control of light is not desired. The Form 79D Novalux luminaire gives an asymmetrical distribution of light. This type of distribution is provided by Alzak finished aluminum deflectors within the globe. These deflectors not only redirect a large portion of the house-side light on the roadway but they also shield residences from disturbing glare.

The Form 79R luminaires give a C-Sym-Etric distribution with greater efficiency than the Form 79D. The efficient light control of the Form 79R is due to the use of a Holophane refractor globe and an Alzak finished aluminum deflecting shield. Because of its higher efficiency, the Form 79R is the type recommended for the majority of street- and highway-lighting applications.

On medium urban traffic thoroughfares the Form 79R equipped with a 6000-lumen lamp mounted 22 to 24 feet above the road and spaced approximately 150 feet apart, staggered, conforms to good street-lighting practice and to the recommendations of the I.E.S. Street Lighting Code. On a 20- to 30-foot highway with a light-colored surface, this linear spacing can be increased to 175-200 feet per luminaire.

The I.E.S. Street and Highway Lighting Codes should be used as references for more complete data on luminaire applications for all types of urban and interurban roadways.



FORM 79 G-E NOVALUX SUSPENSION LUMINAIRE

For Operation on Multiple or Series Circuits up to 5000 Volts

Description	Symmetrical Distribution Form 79S		Asymmetrical Distribution Form 79D		C-Sym-Etric Distribution Form 79R	
	Cat. No. ‡	List Price ‡ GO-51	Cat. No. ‡	List Price ‡ GO-51	Cat. No. ‡	List Price ‡ GO-51
MULTIPLE CIRCUIT LUMINAIRES ^π						
SPUN-SEALED GLOBE HOLDER						
For Internal Wiring, 1½-in. pipe tap hood.....	A4G22	\$26.05	A4G23	\$35.05	A4G24	\$36.30
For Internal Wiring, slip-fitter hood.....	A4G16	28.55	A4G17	37.55	A4G18	38.80
†For External Wiring, 1½-in. pipe tap hood.....	A4G19	28.05	A4G20	37.05	A4G21	38.30
†For External Wiring, slip-fitter hood.....	A4G13	30.55	A4G14	39.55	A4G15	40.80
For Internal Wiring, 1½-in. pipe tap hood, No. 207 globe...	A4G69	26.05	A4G70	35.05
C-CLAMP HINGED GLOBE HOLDER						
For Internal Wiring, 1½-in. pipe tap hood.....	A4G51	26.05	A4G52	35.05	A4G53	36.30
BAIL-TYPE GLOBE HOLDER						
For Internal Wiring, 1½-in. pipe tap hood.....	A4G66	26.05	A4G67	35.05	A4G68	36.30
ROLLER SNAP-LATCH HINGED GLOBE HOLDER						
For Internal Wiring, 1½-in. pipe tap hood.....	A4G57	28.05	A4G58	37.05	A4G59	38.30
SERIES CIRCUIT LUMINAIRES						
SPUN-SEALED GLOBE HOLDER						
For Internal Wiring, 1½-in. pipe tap hood.....	A4G10	\$27.75	A4G23	\$35.05	A4G12	\$38.00
For Internal Wiring, 1½-in. pipe tap hood (△high voltage).	A4G34	29.25	A4G11	36.75	A4G36	39.50
For Internal Wiring, slip-fitter hood.....	A4G4	30.25	A4G5	39.25	A4G6	40.50
For Internal Wiring, slip-fitter hood (△high voltage).....	A4G28	31.75	A4G29	40.75	A4G30	42.00
†For External Wiring, 1½-in. pipe tap hood.....	A4G7	29.75	A4G8	38.75	A4G9	40.00
†For External Wiring, 1½-in. pipe tap hood (△high voltage).	A4G31	31.25	A4G32	40.25	A4G33	41.50
†For External Wiring, slip-fitter hood.....	A4G1	32.25	A4G2	41.25	A4G3	42.50
†For External Wiring, slip-fitter hood (△high voltage).....	A4G25	33.75	A4G26	42.75	A4G27	44.00
For Internal Wiring, 1½-in. pipe tap hood, No. 207 globe...	A4G71	27.75	A4G72	36.75
C-CLAMP HINGED GLOBE HOLDER						
For Internal Wiring, 1½-in. pipe tap hood.....	A4G54	27.75	A4G55	37.05	A4G56	38.00
BAIL-TYPE GLOBE HOLDER						
For Internal Wiring, 1½-in. pipe tap hood.....	A4G63	27.75	A4G64	37.05	A4G65	38.00
ROLLER SNAP-LATCH HINGED GLOBE HOLDER						
For Internal Wiring, 1½-in. pipe tap hood.....	A4G60	29.75	A4G61	38.75	A4G62	40.00
REPLACEMENT SPUN-SEALED REFLECTORS						
New Reflector and Globe (No. 205).....	5556810G1 96X11	\$18.55 7.25	5556810G5 96X12	\$27.55 7.25	5556810G6 96X13	\$28.80 16.00

* A reconditioned reflector and new globe or refractor can be purchased at the price shown, after receipt transportation prepaid, in the nearest G-E warehouse of a reflector, or reflector and deflectors, in usable condition, on which the globe or refractor has been broken. Usable condition will be interpreted as any reflector which is not smashed out of shape and which does not have a hole through it.

† Cat. No. and price does not include MAZDA lamps.

π Equipped with Mogul multiple sockets. Series type recommended for Type IL transformer operation.

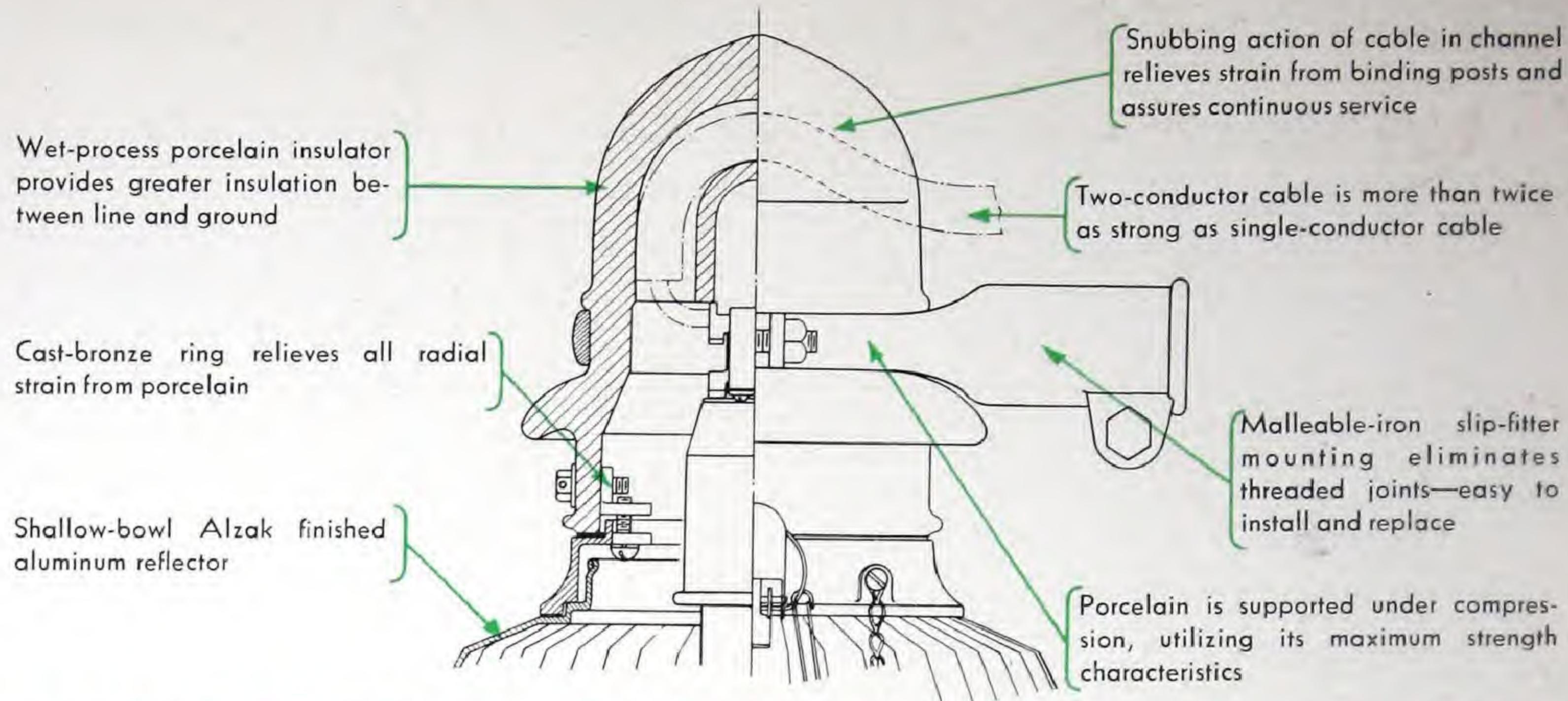
† Gland-type bushing for externally wired two-conductor or two single-conductor cable. Specify size of wire and O.D. when ordering.

△High-voltage series-type furnished complete with Cat. No. 37589862 wet-process porcelain receptacle. Rated 25 kv flashover when properly wired.

All globes listed above are clear rippled.

SPECIAL FEATURES

1. Standard finish is dark green. Luminaires with natural aluminum finish available at same price.
2. Ornaments for any Form 79 luminaire can be furnished. Add \$10.50 list to price of luminaire.
3. Luminaires with detachable globe holders are available with slip-fitter hood, external wiring (gland bushing), and high-voltage receptacle. For roller-latch-type globe holder add \$2.00 each list.
4. 207, globe available on either 79S or 79D luminaires at no increase in price. Order similar to desired Cat. No. listed except with 207 globe.
5. Light alabaster rippled globes available but not recommended. Order similar to desired Cat. No. listed except with L.A.R. globe; add \$1.00 each list.
6. Form 79 with 2-in. pipe tap available at no extra charge.



FORM 72 (FORM 79 FAMILY) FOR HIGH-VOLTAGE SERIES CIRCUITS

Safety in a street-lighting installation requires that a wet-process-porcelain insulator be used for high-voltage series circuits to provide greater insulation between the energized parts of the luminaire and ground. The Form 72S, D or R, is a combination of the outstanding insulator of this type and the Form 79 reflector-globe. From a lighting standpoint its characteristics are identical with those of the Form 79. Any of the globes or refractors or globe-holding arrangements for the Form 79 are also available for the Form 72. The many outstanding features of the Form 79 previously described in this bulletin also apply to this high-voltage luminaire.

In addition, the Form 72 has many other features of its own which give it important advantages over all other series luminaires. It differs from the conventional insulator design in that it is supported under compression by a clamp support around the middle of the insulator. Since porcelain is very

strong in compression but weak in tension, the Form 72 has greater resistance to breakage.

The insulator is arranged for wiring with two-conductor cable, which is more than twice as strong as single-conductor cable. It goes in the wiring channel in such a way that there is a snubbing action which relieves strain on the binding posts. This feature, together with the large radius of the bent cable, greatly reduces the possibility of open circuits. The cable is split within the insulator, so there is no chance of grounding, even if the insulator should be carelessly wired. Since there are no exposed live parts, this luminaire is safe.

The Form 79 type reflector-globe combinations are interchangeable with radial-wave reflectors on this insulator. Cast reflectors with various types of glassware can also be used. However, the trend is to modernize these insulators and to adopt the Form 79 type of reflector as standard throughout the street-lighting system.

LIST PRICES

Form No. Complete	Glassware	Cat. No.	List Price *
72S	No. 205 Clear Globe	3791603G1	\$35.70
72D	No. 205 Clear Globe and Deflectors	3791603G2	44.70
72R	Holophane C-Sym-Etric Bowl Refractor	3791603G14	45.95

* Catalogue numbers and prices do not include MAZDA lamps. 207 globe, natural aluminum finish, bail-type or C-clamp globe holders available at no increase in price.

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